Dynamic Learning in Strategic Pricing Games

Presented by:

John R. Birge, PhD
Jerry W. and Carol Lee Levin Distinguished Service Professor of Operations Management, Booth School of Business, University of Chicago

In monopoly pricing situations, firms should optimally vary prices to learn demand. The variation must be sufficiently high to ensure complete learning. In competitive situations, however, varying prices provide information to competitors and may reduce the value of learning. Such situations may arise in the pricing of new products such as pharmaceuticals. This talk will discuss how this effect can be strong enough to stop learning so that firms optimally reduce any variation in prices and choose not to learn demand. The result can be that the selling firms achieve a collaborative outcome instead of a competitive equilibrium. The result has implications for policies that restrict price changes or require disclosures.